DEPARTMENT of ENVIRONMENTAL SERVICES Water Supply & Pollution Control Division - Biology Bureau

LAKE TROPHIC DATA

MORPHOMETRIC:

Lake: MOOSE POND	Lake Area (ha): 15.01
Town: MILLSFIELD	Maximum depth (m): 3.3
County: Coos	Mean depth (m): 0.8
River Basin: Androscoggin	Volume (m^3) : 120000
Latitude: 44°43'44" N	Relative depth: 0.8
Longitude: 71°13'48" W	Shore configuration: 1.31
Elevation (ft): 1821	Areal water load (m/yr): 11.57
Shore length (m): 1800	Flushing rate (yr^{-1}) : 14.50
Watershed area (ha): 310.8	P retention coeff.: 0.53
% watershed ponded: 1.0	Lake type: natural

BIOLOGICAL:	9 February 1994	4 August 1993
DOM. PHYTOPLANKTON (% TOTAL) #1	MELOSIRA 99%	SPHAEROCYSTIS 30%
#2		FILAM. BL-GR SPP 20%
#3		ANABAENA 15%
PHYTOPLANKTON ABUNDANCE (cells/mL)		350
CHLOROPHYLL-A (µg/L)		1.63
DOM. ZOOPLANKTON (% TOTAL) #1	KELLICOTTIA 68%	KELLICOTTIA 77%
#2	KERATELLA 26%	NAUPLIUS LARVA 14%
#3		
ROTIFERS/LITER	61	254
MICROCRUSTACEA/LITER	4	58
ZOOPLANKTON ABUNDANCE (#/L)	65	312
VASCULAR PLANT ABUNDANCE		Scattered
SECCHI DISK TRANSPARENCY (m)		3.1 Visible on bottom
BOTTOM DISSOLVED OXYGEN (mg/L)	7.6	4.5
BACTERIA (E. coli, #/100 ml) #1		7
#2		
#3		

SUMMER THERMAL STRATIFICATION:

weakly stratified

Depth of thermocline (m): None Hypolimnion volume (m³): None Anoxic volume (m³): None

HEMICAL: Lake: MOOSE POND Town: MILLSFIELD					
	9 Febru	uary 1994	4 1	August 199	93
DEPTH (m)	1.0		1.0		2.5
pH (units)	6.3		6.8		6.6
A.N.C. (Alkalinity)	7.7		6.4		6.3
NITRATE NITROGEN	0.17		< 0.02		< 0.02
TOTAL KJELDAHL NITROGEN	0.35		0.45		0.51
TOTAL PHOSPHORUS	0.011		0.018		0.013
CONDUCTIVITY (µmhos/cm)	34.7		29.6		30.3
APPARENT COLOR (cpu)	32		43		48
MAGNESIUM			0.69		
CALCIUM			3.0		
SODIUM			1.2		
POTASSIUM			< 0.40		
CHLORIDE	< 2		< 3		< 3
SULFATE	5		5		5
TN : TP	47		25		39
CALCITE SATURATION INDEX			3.2		

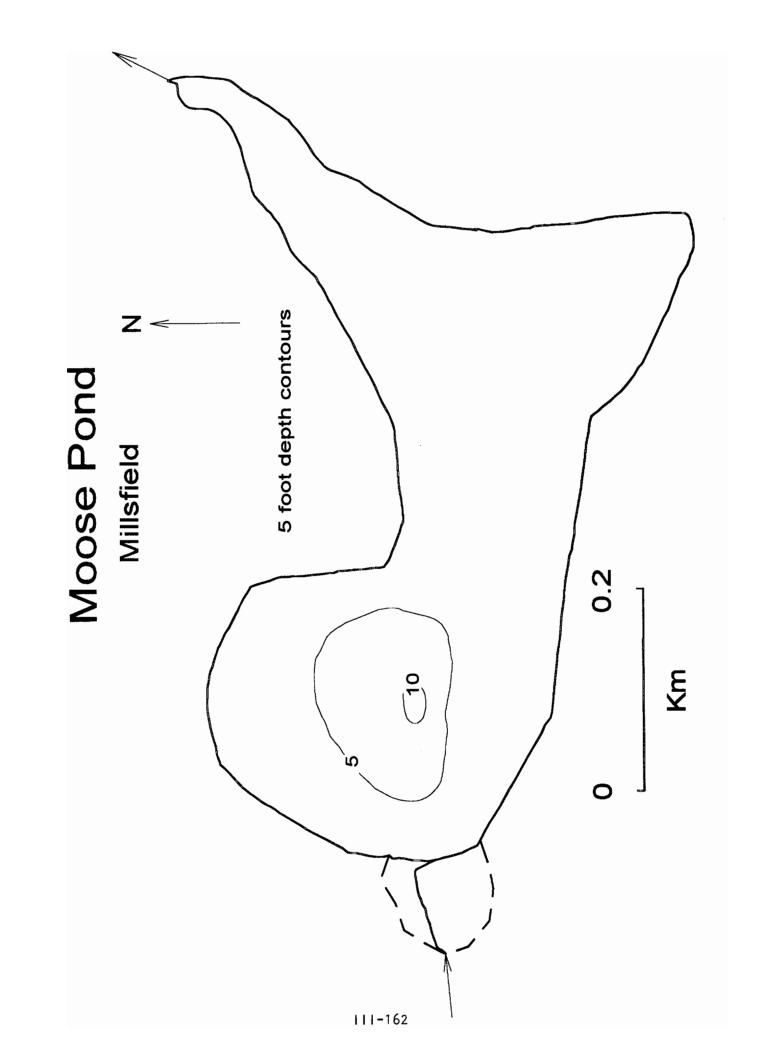
All results in mg/L unless indicated otherwise

TROPHIC CLASSIFICATION: 1993

•	D.O.	S.D.	PLANT	CHL	TOTAL	CLASS
	**	1	1	0	2	Oligo.

COMMENTS:

- 1. A.K.A. Little Millsfield Pond.
- 2. This is a somewhat remote pond accessible by a gated logging road.
- Moose tracks were very common around the shoreline and it was evident that moose had been feeding on the
 aquatic plants in the pond. Aquatic plants would probably have been more abundant if the moose weren't
 present.
- 4. The wholewater phytoplankton was dominated by <u>Cryptomonas</u> (25%) <u>Chroomonas</u> (20%) and tiny green flagellates (20%).



FIELD DATA SHEET

LAKE: MOOSE POND

DATE: 08/04/93

TOWN: MILLSFIELD

WEATHER: CLEAR AND CALM

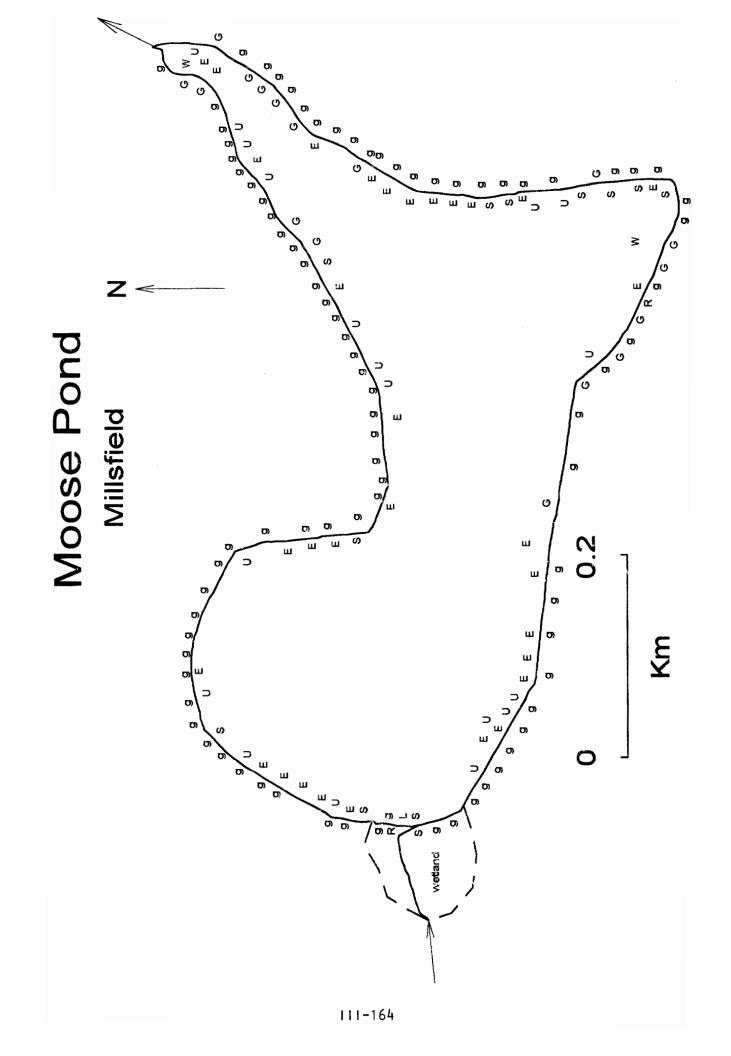
EPTH (M)	TEMP (°C)	*DISSOLVED OXYGEN	OXYGEN SATURATION
0.1	23.0	8.8	101 %
0.5	22.5	8.6	97 %
1.0	22.0	8.1	92 %
1.5	21.0	8.2	92 %
2.0	20.0	7.6	83 %
2.5	19.0	5.3	57 %
3.0	18.0	4.5	47 %
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SECCHI DISK (m): 3.1 VOB COMMENTS:

BOTTOM DEPTH (m): 3.1

TIME: 1000

*Dissolved oxygen values are in mg/L



AQUATIC PLANT SURVEY

TOWN: MILLSFIELD

DATE: 08/04/93

Key	PLANT	NAME	ABUNDANCE	
кей	GENERIC	СОММОИ		
E	Eriocaulon septangulare	Pipewort	Scat/Common	
U	Utricularia	Bladderwort	Scattered	
S	Sparganium	Bur reed	Sparse	
g	Myrica gale	Sweet gale	Common/Abun	
R	Sarracenia purpurea	Pitcher-plant	Sparse	
L	Lemna	Duckweed	Sparse	
G	Gramineae	Grass family	Scattered	
W	Potamogeton	Pondweed	Sparse	
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OVERALL ABUNDANCE: Scattered

GENERAL OBSERVATIONS:

LAKE: MOOSE POND

- 1. The overall abundance rating does not include sweet gale, which was abundant around the entire shoreline but generally out of the water.
- 2. Filamentous algae were present around much of the shoreline but are not depicted on the map.
- 3. Freshwater sponges were observed at both the inlet and outlet of the pond but are not depicted on the map.
- 4. Numerous moose tracks were evident; two loons, a great blue heron and kingfishers were observed.